

REMARKS

In the aforesaid Office Action, claims 1, 2, 10-12, 15 and 23 were rejected under 35 USC 102(b) as being anticipated by Burns (5,569,201), claims 3-8 were rejected under 35 USC 103(a) as being unpatentable over Burns alone, claims 13-14 were rejected under 35 USC 103(a) as being unpatentable over Burns in view of Muni et al. (5,533,968), and claim 16 was rejected under 35 USC 103(a) as being unpatentable over Burns in view of Brown (6,096,056). Claims 1-8 and 10-27 are pending, and claims 17-22 are withdrawn from consideration (new claims 24-27 being added by this amendment).

This amendment is supplemental to the after final amendment, filed on October 12, 2004 and Not Entered (so that the status identifier "Not Entered" is used for the claims amended or added by the October 12, 2004 amendment).

Applicants appreciate the courtesies extended by the Examiner in the telephone interviews on September 9, 2004, and September 16, 2004, conducted between Applicant's representative, Priscilla Morrison, and the Examiner. Claims 1 and 11, and Burns were discussed. Applicants proposed amending claim 1 to clarify that the unsecured portions are formed by the inner surface of the outer tubular member being not bonded to the outer surface of the inner tubular member, and that the inner surface and not the outer surface of the outer tubular member at the unsecured portions radially adjacent to the secured portions defines sections of the inflation lumen. Applicants stated that in Fig. 4A of Burns, the outer tubular member is bonded to the inner tubular member by the tubes 44 or by the material shown as cross-hatching, so that there is no unsecured portion of the outer tubular member visible, and the tubes 44 define the inflation lumen not the outer tubular member (in Fig. 4A). Applicants agreed to address the embodiments of Figs. 10 and 11 of Burns in these remarks. Regarding claim 11, Applicants stated that the bonds between the balloon and the shaft in Fig. 1B of Burns extend all the way around the circumference thereof in order to form a fluid tight balloon, and thus can't be radially adjacent to an unsecured portion.

The Examiner rejected claims 1, 2, 10-12, 15 and 23 under 35 USC 102(b) as being anticipated by Burns, stating that Burns Fig. 1B shows a balloon catheter with an outer tubular member 14 and an inner tubular member 18, and Fig. 4A shows the inner tubular member receives a guidewire 22 and is bonded to the inner surface of the outer tubular member via bonds 46.

The Examiner states that the area of the outer member that does not contact the tubes 44 is considered unsecured to the inner member because only the area where the tubes 44 are is there any bonding. However, in Fig. 4 of Burns, the area of the outer member that does not contact the tubes 44 is illustrated as being indirectly bonded to the inner member by the material designated with cross-hatching in Fig. 4. Thus, although not bonded to the inner member by the tubes 44, the area is nonetheless still indirectly bonded to the inner member (by the material designated with cross-hatching in Fig. 4).

The embodiments of Figs. 10 and 11 of Burns do have radially spaced unsecured portions of the outer tubular member (12) located radially adjacent to sections of the outer tubular member (12) which have the ribbed insert (100 and 110, respectively) extending between the outer tubular member (12) and the inner tubular member (18). However, the inflation lumen (104 and 114, respectively) at these unsecured portions is not defined by the inner surface of the outer tubular member together with the outer surface of the inner tubular member, as required by claim 1. Rather, in Burns Figs. 10 and 11, the inflation lumen (104 and 114, respectively) is defined by the inner surface of the outer tubular member (12) together with the outer surface of the ribbed insert (100 and 110, respectively) and not together with the outer surface of the inner tubular member (18).

The Examiner states that since the area formed by the unsecured portions surround the tubes 44 it can be construed that they define sections of the inflation lumen. However, Applicants have amended claim 1 to clarify that it is an inner surface and not an outer surface of the outer tubular member which together with the outer surface of the inner tubular member define the inflation lumen at the unsecured portions. Both the inner and the outer surface of the outer tubular member 14 of Burns surround the tubes

44. Therefore, the terminology “defines” as used in Applicant’s claim 1 refers to the member or members which actually form a boundary of the inflation lumen and not merely another member surrounding the member which forms the boundary of the inflation lumen. Consequently, although the outer tubular member 14 of Burns surrounds the tubes 44, the outer tubular member 14 does not define sections of the inflation lumen as required by claim 1 (only the tubes 44 define the inflation lumen at that location) in the embodiment of Fig. 4.

The Examiner further states, in the Response to Arguments Section, that Applicant admits on page 9 of the previous amendment that the unsecured portions (of Burns outer tubular member 14) define the inflation lumen and thus means that the portions are adjacent to one another and would imply they are radially spaced. However, Applicants stated on page 9 that “While Fig. 4B of Burns does illustrate unsecured portions of the outer tubular member which define sections of the inflation lumen, the unsecured portions are longitudinally adjacent to the bonds 46 in insert 40, and are not radially adjacent to the bonds 46”.

Regarding claim 11, the Examiner states that it can be construed that Fig. 1B of Burns shows two longitudinal spaced apart bonded or secured areas. However, the areas indicated by the Examiner (28 and 32 in Fig. 1B) are the sections of the balloon which are secured to the underlying shaft, and therefore which extend completely around the circumference of the shaft in order to form a fluid tight balloon. Thus, the secured portions formed by the areas at 28 and 32 in Fig. 1B cannot be radially adjacent to unsecured portions. Rather, secured portions 46 are the bonds 46 between the tubes 44 and the tubular member 42 which is itself bonded to the inner tubular member 18. As illustrated in Fig. 4A, the bonds 46 are radially spaced apart from one another around the circumference of the catheter shaft. As best illustrated in the longitudinal cross sectional view of Fig. 4B, the each bond 46 appears to extend longitudinally, and run the length of the interface between members 44 and 42, and thus are not longitudinally spaced apart.

The Examiner rejected claims 3-8 under 35 USC 103(a) as being unpatentable over Burns alone, claims 13-14 under 35 USC 103(a) as being unpatentable over Burns in

view of Muni et al., and claim 16 under 35 USC 103(a) as being unpatentable over Burns in view of Brown. However, Burns does not disclose or suggest that the outer tubular member has unsecured portions radially adjacent to the secured portions which, together with the outer surface of the inner tubular member, define sections of the inflation lumen in fluid communication with each other via a section of the inflation lumen defined at least in part by the outer tubular member located proximal to at least one of the secured portions, as set forth above.

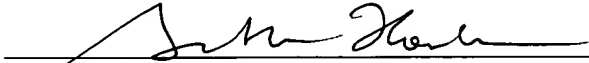
New claim 24 requires secured portions that are formed by an inner surface of the outer tubular member being directly bonded to an outer surface of the inner tubular member by a heat-bond between the polymeric material of the outer tubular member and the polymeric material of the inner tubular member. Burns does not disclose or suggest such a configuration. In contrast, in Burns Figs. 4B, 10 and 11, the outer tubular member is illustrated as being indirectly bonded to the inner tubular member 18 (e.g., via the inserts 40, 100, 110), and not directly bonded to the inner tubular member 18 by a heat-bond.

New claim 26 is substantially similar to claim 24 but also requires that the inner tubular member has an outer diameter at the location of the heat-bond and at a longitudinally adjacent location spaced from the heat-bond, and the outer tubular member has a first inner diameter at the location of the heat-bond which is equal to the outer diameter of the inner tubular member and a second inner diameter at the longitudinally adjacent location spaced from the heat-bond which is larger than the outer diameter of the inner tubular member.

In light of the above amendments and remarks, applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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